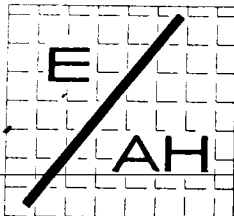


N00639.AR.002204
NSA MID SOUTH
5090.3a

LETTER DISCUSSING 6 WELL CLOSURES AT BUILDING S-50 MILLINGTON SUPPACT TN
8/23/1994
ENSAFE/ ALLEN AND HOSHALL



EnSafe / Allen & Hoshall

a joint venture for professional services

5720 Summer Trees Dr. Suite 8 Memphis, TN 38134

(901) 383-9115 Fax (901) 383-1743

August 23, 1994

Greg Parker
Memphis/Shelby County Health Department
Pollution Control-Water Quality
814 Jefferson Avenue
Memphis, Tennessee 38105

RE: Closure of Five Monitoring Wells at Building S-50, NAS Memphis.

Dear Mr. Parker,


On behalf of the Navy, EnSafe/Allen & Hoshall (E/A&H) is notifying your office of monitoring well closures at NAS Memphis, Millington, Tennessee. Five shallow monitoring wells were closed at Building S-50. The closure procedure met requirements outlined in *Shelby County Well Construction Codes*, June 1994 including:

- Sanitizing each well with a chlorine tablet.
- Pressure grouting from the bottom of the well to the surface with Portland cement.
- Removing each wellhead and filling the last few feet with concrete.

Ms. Sherry Wheeler from your office was onsite during well sanitation and grouting. Joe Matthews of E/A&H, a State of Tennessee Registered Professional Geologist, was the onscene coordinator. Tristate Testing Services, Inc. completed the work under subcontract to E/A&H.

Enclosed please find logs for each monitoring well, a site map with well locations, and the completed well permit for the closure action. Please do not hesitate to call if you have any questions or require additional information.

Sincerely,
EnSafe/Allen & Hoshall


By: Joe Matthews, RPG TN1112

enclosures

cc: Tonya Barker, NAS Memphis
John Karlyk, SOUTH DIV
Glenn Birdwell, TDEC
TDEC-Nashville

"F" STREET

456

FCU

S-52

S-51

S50-3

S50-5

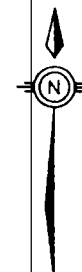
S50-1

S50-2

S-50

760

1585



120 0 120
SCALE FEET



NAS MEMPHIS

S-50
UST SITE

DWG DATE: 05/27/94 DWG NAME: 79SITE3

WELL CONSTRUCTION LOG.

S50-MW-1

WELL LOCATION BUILDING S-50, NAS MEMPHIS

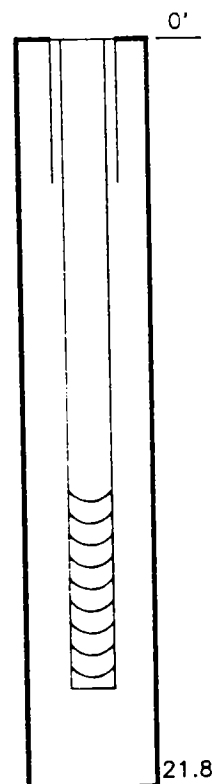
DATE INSTALLED 06/15/93

TYPE OF WELL 2 INCH O.D. SCHEDULE 40 PVC MONITORING WELL

1. HEIGHT OF CASING ABOVE GROUND FLUSH MOUNT
2. WATER SURFACE ELEV. 259.59 (06/28/93)
 - a) DEPTH TO SATURATED ZONE N/A
3. TOP OF CASING ELEV. 266.35
4. PROTECTIVE CASING YES ☒ NO
 - a) CASING LENGTH N/A
5. LENGTH OF SCREEN 15.0'
6. SIZE\TYPE OF SCREEN .010" SLOT PVC
7. LENGTH OF SUMP 0
8. TOTAL DEPTH OF BORING 21.8 HOLE DIAMETER _____
SCREENED INTERVAL 6.8' - 21.8'
10. TYPE OF SCREEN FILTER PACK 10/20 FILTER SAND
QUANTITY USED .375lb. SIZE _____ U/C _____
11. DEPTH TO TOP OF FILTER 5.0'
12. TYPE OF SEAL 1/4" BENTONITE PELLETS
QUANTITY USED 2.5 GALLONS
13. DEPTH TO TOP OF SEAL 3.0'
14. TYPE OF GROUT PORTLAND TYPE 1 / BENTONITE
GROUT MIXTURE 93/7
METHOD OF PLACEMENT PRESSURE GROUT
15. COMMENTS COMPLETED WITH LOCKING EXPANSION -
TYPE CAP

INSTALLATION DESCRIPTION

DESCRIPTION DEPTH(FT.)



ENVIRONMENTAL ASSESSMENT
REPORT
NAS MEMPHIS

S50-MW-1
WELL CONSTRUCTION LOG

DWG DATE: 08/26/93

DWG NAME: 68MWLOG1

WELL CONSTRUCTION LOG. S50-MW-2

WELL LOCATION BUILDING S-50, NAS MEMPHIS

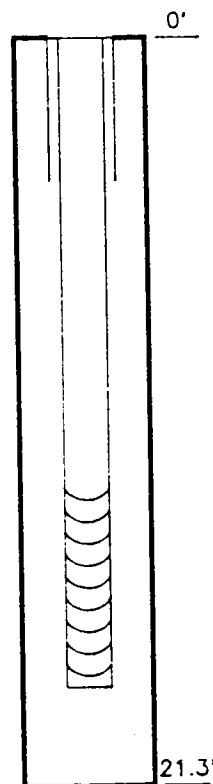
DATE INSTALLED 06/15/93

TYPE OF WELL 2 INCH O.D. SCHEDULE 40 PVC MONITORING WELL

1. HEIGHT OF CASING ABOVE GROUND FLUSH MOUNT
2. WATER SURFACE ELEV. 259.02 (06/28/93)
a) DEPTH TO SATURATED ZONE N/A
3. TOP OF CASING ELEV. 265.82
4. PROTECTIVE CASING YES ☒ NO
a) CASING LENGTH N/A
5. LENGTH OF SCREEN 15.0'
6. SIZE\TYPE OF SCREEN .010" SLOT PVC
7. LENGTH OF SUMP 0
8. TOTAL DEPTH OF BORING 21.3 HOLE DIAMETER
9. SCREENED INTERVAL 16.3' - 21.3'
10. TYPE OF SCREEN FILTER PACK 10/20 FILTER SAND
QUANTITY USED 375lb. SIZE U/C
11. DEPTH TO TOP OF FILTER 5.0'
12. TYPE OF SEAL 1/4" BENTONITE PELLETS
QUANTITY USED 2.5 GALLONS
13. DEPTH TO TOP OF SEAL 3.0'
14. TYPE OF GROUT PORTLAND TYPE I / BENTONITE
GROUT MIXTURE 93/7
METHOD OF PLACEMENT PRESSURE GROUT
15. COMMENTS COMPLETED WITH LOCKING EXPANSION -
TYPE CAP

INSTALLATION DESCRIPTION

DESCRIPTION DEPTH(FT.)



ENVIRONMENTAL ASSESSMENT
REPORT
NAS MEMPHIS

S50-MW-2
WELL CONSTRUCTION LOG

DWG DATE: 08/26/93 DWG NAME: 68MWLOG2

WELL CONSTRUCTION LOG. S50-MW-3

WELL LOCATION BUILDING S-50, NAS MEMPHIS

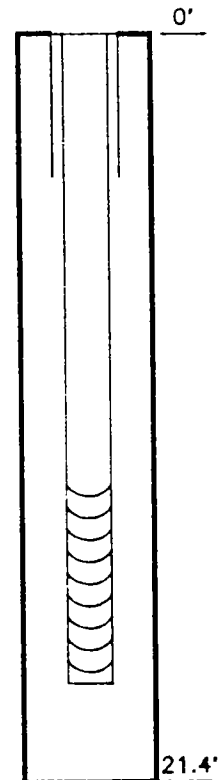
DATE INSTALLED 06/16/93

TYPE OF WELL 2 INCH O.D. SCHEDULE 40 PVC MONITORING WELL

1. HEIGHT OF CASING ABOVE GROUND FLUSH MOUNT
2. WATER SURFACE ELEV. 261.23 (06/28/93)
 - a) DEPTH TO SATURATED ZONE N/A
3. TOP OF CASING ELEV. 266.58
4. PROTECTIVE CASING YES ☒ NO
 - a) CASING LENGTH N/A
5. LENGTH OF SCREEN 15.0'
6. SIZE\TYPE OF SCREEN .010" SLOT PVC
7. LENGTH OF SUMP 0
8. TOTAL DEPTH OF BORING 21.4 HOLE DIAMETER _____
9. SCREENED INTERVAL 6.4' - 21.4'
10. TYPE OF SCREEN FILTER PACK 10/20 FILTER SAND
QUANTITY USED 375lb. SIZE _____ U/C _____
11. DEPTH TO TOP OF FILTER 5.0'
12. TYPE OF SEAL 1/4" BENTONITE PELLETS
QUANTITY USED 2.5 GALLONS
13. DEPTH TO TOP OF SEAL 3.0'
14. TYPE OF GROUT PORTLAND TYPE I / BENTONITE
GROUT MIXTURE 93/7
METHOD OF PLACEMENT PRESSURE GROUT
15. COMMENTS COMPLETED WITH LOCKING EXPANSION -
TYPE CAP

INSTALLATION DESCRIPTION

DESCRIPTION DEPTH(FT.)



ENVIRONMENTAL ASSESSMENT
REPORT
NAS MEMPHIS

S50-MW-3
WELL CONSTRUCTION LOG

DWG DATE: 08/26/93 | DWG NAME: 68NMLOG3

WELL CONSTRUCTION LOG. S50-MW-4

WELL LOCATION BUILDING S-50, NAS MEMPHIS

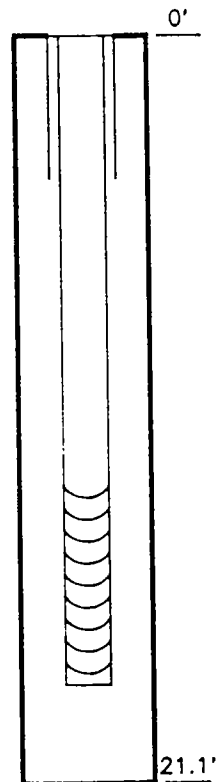
DATE INSTALLED 06/17/93

TYPE OF WELL 2 INCH O.D. SCHEDULE 40 PVC MONITORING WELL

1. HEIGHT OF CASING ABOVE GROUND FLUSH MOUNT
2. WATER SURFACE ELEV. 260.95 (06/28/93)
 - a) DEPTH TO SATURATED ZONE N/A
3. TOP OF CASING ELEV. 266.24
4. PROTECTIVE CASING YES ☒ NO
 - a) CASING LENGTH N/A
5. LENGTH OF SCREEN 15.0'
6. SIZE\TYPE OF SCREEN .010" SLOT PVC
7. LENGTH OF SUMP 0
8. TOTAL DEPTH OF BORING 21.1 HOLE DIAMETER _____
SCREENED INTERVAL 6.1' - 21.1'
10. TYPE OF SCREEN FILTER PACK 10/20 FILTER SAND
QUANTITY USED 375lb. SIZE _____ U/C _____
11. DEPTH TO TOP OF FILTER 5.0'
12. TYPE OF SEAL 1/4" BENTONITE PELLETS
QUANTITY USED 2.5 GALLONS
13. DEPTH TO TOP OF SEAL 3.0'
14. TYPE OF GROUT PORTLAND TYPE I / BENTONITE
GROUT MIXTURE 93/7
METHOD OF PLACEMENT PRESSURE GROUT
15. COMMENTS COMPLETED WITH LOCKING EXPANSION -
TYPE CAP

INSTALLATION DESCRIPTION

DESCRIPTION DEPTH(FT.)



ENVIRONMENTAL ASSESSMENT
REPORT
NAS MEMPHIS

S50-MW-4
WELL CONSTRUCTION LOG

DWG DATE: 08/26/93 DWG NAME: 68NMLOG4

WELL CONSTRUCTION LOG. S50-MW-5

WELL LOCATION BUILDING S-50, NAS MEMPHIS

DATE INSTALLED 06/18/93

TYPE OF WELL 2 INCH O.D. SCHEDULE 40 PVC MONITORING WELL

1. HEIGHT OF CASING ABOVE GROUND FLUSH MOUNT
2. WATER SURFACE ELEV. 258.91 (06/28/93)
 - a) DEPTH TO SATURATED ZONE N/A
3. TOP OF CASING ELEV. 266.55
4. PROTECTIVE CASING YES ☒ (NO)
 - a) CASING LENGTH N/A
5. LENGTH OF SCREEN 15.0'
6. SIZE\TYPE OF SCREEN .010" SLOT PVC
7. LENGTH OF SUMP 0
8. TOTAL DEPTH OF BORING 21.1 HOLE DIAMETER _____

SCREENED INTERVAL 6.1' - 21.1'
10. TYPE OF SCREEN FILTER PACK 10/20 FILTER SAND

QUANTITY USED 375lb. SIZE _____ U/C _____
11. DEPTH TO TOP OF FILTER 5.0'
12. TYPE OF SEAL 1/4" BENTONITE PELLETS

QUANTITY USED 2.5 GALLONS
13. DEPTH TO TOP OF SEAL 3.0'
14. TYPE OF GROUT PORTLAND TYPE I / BENTONITE

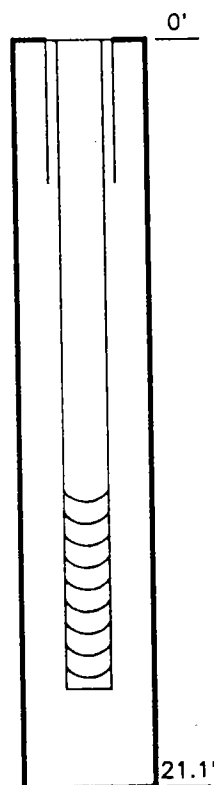
GROUT MIXTURE 93/7

METHOD OF PLACEMENT PRESSURE GROUT
15. COMMENTS COMPLETED WITH LOCKING EXPANSION -

TYPE CAP

INSTALLATION DESCRIPTION

DESCRIPTION DEPTH(FT.)



ENVIRONMENTAL ASSESSMENT
REPORT
NAS MEMPHIS

S50-MW-5
WELL CONSTRUCTION LOG

DWG DATE: 08/26/93 | DWG NAME: 68NMLOG5

94-223-1100 GP

COPY

MEMPHIS AND SHELBY COUNTY HEALTH DEPARTMENT
 POLLUTION CONTROL SECTION
 WATER QUALITY ROOM 430-L
 814 JEFFERSON AVENUE
 MEMPHIS, TENNESSEE 38105
 901-576-7741

WELL APPLICATION FORM

SECTIONS I, II, III, AND IX MUST BE COMPLETELY FILLED OUT BY THE WELL OWNER.
 SECTIONS IV THRU VIII MUST BE COMPLETELY FILLED OUT BY THE WELL DRILLER.
 APPLICANT AND DRILLER MUST SIGN APPLICATION.

I. WELL OWNER

NAME OR NAME OF ESTABLISHMENT Naval Air Station
 CONTACT NAME: Joe Matthews TITLE: Professional Geologist
 MAILING ADDRESS: 5720 Summer Trees Drive, Suite 8
 CITY: Memphis, STATE: TN ZIP: 38134
 PHONE: BUSINESS (901) 383-9115 HOME N/A

II. WELL LOCATION

ADDRESS: Building S-50 (Off Navy Road)
 WELL IS APPROX. _____ FEET N S E W OF _____ RD. OR ST.
 WELL IDENTIFICATION # _____ LAND SIZE IN ACRES _____

III. TYPE WELL TO BE DRILLED

____ WATER PRODUCTION
 ____ DEWATERING
 ____ RECOVERY
 ____ SOIL BORING
 ____ OTHER
 SPECIFY _____

MONITORING

____ a. Ground water quality
 ____ b. Methane gas
 ____ c. Water level
 ____ d. Leachate
 ____ e. Gas movement
 ____ f. Chemical movement
 ____ g. Other: _____

IV. WELL DRILLER

DRILLING COMPANY: TRI-STATE TESTING SERVICES, INC.
 TENNESSEE WELL DRILLER LICENSE #: N/A
 REPRESENTATIVE: DAVID D. MCCRAY PHONE: (901) 385-1199
 MAILING ADDRESS: 6756 BUCKLES COVE
 CITY: MEMPHIS, STATE: TN ZIP: 38133

V. TYPE OF WORK

____ NEW WELL
 ____ REWORK
X FILL AND ABANDON

____ REPLACEMENT
 ____ REPAIR
 ____ OTHER
 SPECIFY _____

WELL APPLICATION FORM (PAGE 2)

VI. WELL CONSTRUCTION INFORMATION

EXPECTED DEPTH OF WELL _____ FT. CONSTRUCTION WATER SOURCE _____
WELL CASING: TYPE MATERIAL _____ DIAMETER _____ WALL THICKNESS _____
TYPE OF WATER PUMPING EQUIP.: SUBMERSIBLE _____ JET _____ TURBINE _____

VII. WELL INFORMATION

1. NUMBER OF WELLS NEEDED: Five PROPOSED DEPTH OF WELL (S): 21.0'
2. SUBSTANCES TO BE MONITORED FOR: _____
3. SAMPLING METHOD TO BE USED: BAILER _____ PUMP _____
4. HOW OFTEN IS WELL TO BE SAMPLED? _____

VIII. WATER WELL USAGE

_____ RESIDENTIAL _____ COMMERCIAL _____ INDUSTRIAL _____ FARM
_____ HEAT PUMP _____ SPRINKER SYSTEM _____ IRRIGATION
_____ RETAIN LAKE LEVEL _____ OTHER (SPECIFY) _____

IX. ADDITIONAL INFORMATION REQUIRED

1. HOW MANY EXISTING WELLS ARE ON PROPERTY?
_____ ACTIVE _____ INACTIVE OR ABANDONED _____ NONE
2. THE FOLLOWING MUST ACCOMPANY APPLICATION WHEN SUBMITTED:
A. PLOT PLAN SHOWING ALL NEEDED INFORMATION AS STATED IN REGULATIONS.
B. \$25.00 PROCESSING FEE (DOES NOT APPLY TO FILLING AN ABANDONED WELL)
C. ALL WELL APPLICATIONS REQUIRE AN ADDITIONAL \$100.00 INSPECTION FEE
(WITH THE EXCEPTION OF WATER PRODUCTION WELL APPLICATIONS).
D. A SKETCH OF ANY PROPOSED WELL MUST BE ENCLOSED.

THE APPLICANT AND WELL DRILLER HEREBY AGREE TO COMPLY WITH ALL RULES AND REGULATIONS ADOPTED BY THE M.S.C.H.D. TO REGULATE WATER QUALITY CONTROL WITHIN SHELBY COUNTY. FURTHERMORE, THE DUTIES WHICH ARE LISTED IN THE REGULATIONS HAVE BEEN READ BY THE APPLICANT AND BY THE WELL DRILLER, AND ARE FULLY UNDERSTOOD AND AGREED UPON.

SIGNATURE OF WELL OWNER _____

DATE 8/23/94

SIGNATURE OF WELL DRILLER David D. McRay

DATE 24 Aug. '94

REMARKS: THE HEALTH DEPARTMENT RESERVES THE RIGHT TO SUPPLEMENT THE GENERAL REQUIREMENTS BY AN ADDENDUM AS MAY BE REQUIRED. IF THE APPLICATION IS APPROVED BY THE HEALTH DEPARTMENT, A CONSTRUCTION PERMIT WILL BE ISSUED IN WRITING TO THE WELL DRILLER WITH A COPY BEING SENT TO THE APPLICANT. NO CONSTRUCTION IS TO BEGIN UNTIL SAID PERMIT HAS BEEN RECEIVED, AND SHALL BE KEPT AT THE CONSTRUCTION SITE UNTIL WELL HAS BEEN COMPLETED.

FOR DEPARTMENT USE ONLY

DATE APPLICATION RECEIVED _____

LOG NUMBER _____

PERMIT REJECTED _____ GRANTED _____ CONDITIONS _____

APPROVAL/DENIAL DATE _____

PERMIT NUMBER _____

DEPARTMENT SIGNATURE _____